Before
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Application of BellSouth Corporation,	)	CC Docket No. 97-231
BellSouth Telecommunications, Inc.	)	
and BellSouth Long Distance, Inc.	)	
for Provision of In-Region, InterLATA	)	
Services in Louisiana	)	

Comments of MCI Telecommunications Corporation

Exhibits F - I

EXHIBITS

TAB	Title	Subject
F	Declaration of Robert Hall in CC Docket No. 97-208	Public Interest
G	Declaration of Kenneth Baseman and Frederick Warren-Boulton in CC Docket No. 97-208	Public Interest
H	Declaration of Don Wood	Pricing
I	Affidavit of Dale Hatfield in CC Docket No. 97-121	Public Interest, PCS

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Exhibit F:
Declaration of Robert Hall
on Behalf of MCI Telecommunications Corporation
in CC Docket No. 97-208

Before the
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In the Matter of	)	
	)	
Application of BellSouth	)	
Corporation, BellSouth	)	
Telecommunications, Inc., and	)	CC Docket No. 97-208
BellSouth Long Distance, Inc., for	)	
Provision In-Region, InterLATA	)	
Services in South Carolina	)	

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I. Introduction and Summary

1. I have been asked by MCI to prepare a discussion of the economic issues raised by BellSouth's application to provide long-distance services to its customers in South Carolina.

2. My analysis is in the framework of the Telecommunications Act of 1996. The Act seeks to create the same benefits of competition in local service that have already been achieved in long distance. At the same time, the Act recognizes that the quality and price of telephone service would be threatened by premature entry of a dominant local carrier into long-distance service. When a local carrier, still close to a monopolist in its own market, becomes a rival to the long-distance carriers serving its local customers, that local carrier may stand in the way of better and cheaper telephone service. The most profitable strategy for the local telephone company is to cease cooperation with the other long-distance carriers, now its rivals in that market, in order to promote its own service at higher prices. The 1996 Act acknowledges this adverse incentive, and prevents local telephone companies from controlling long-distance subsidiaries until there is the opportunity for vigorous and committed competition in local telephone service. Only when customers can protect themselves by switching local carriers can we be confident of retaining the benefits already achieved in the competitive long-distance market.

3. Widespread effective competition at the level of the local access loop is not imminent. In Part II, which presents my assessment of today's local telephone markets, I explore the forms that local competition will take in the next few years. I conclude, as did the Department of Justice, that the only standard of adequate local competition that sufficiently protects telephone consumers is that of irreversible investment in local service. The form of investment that is most clearly irreversible is to require the building of new local loops; this is likely to occur only in denser areas.

4. Only larger telephone customers or those in dense areas will enjoy any choice of local carriers able to provide their own connections any time soon. Instead, the overwhelming majority of customers will remain connected to the network only by the single loop owned by the historical phone company. From the vantage point of the great majority of telephone customers, the local loop is still a monopoly. Only a single supplier is able to cover costs. Yet until the building of duplicate loops is economically feasible, the irreversible investments essential to genuine local competition will take less reliable forms. Competitive local service will be offered by carriers that lease or resell the local loops of the dominant local carrier. These carriers remain dependent on the cooperation of the dominant carrier, cooperation that is only grudgingly offered under the compulsion of regulators—cooperation does not come naturally and is contrary to strong economic incentives. Thus, so long as telephone consumers mainly depend on their local wire loops, effective local competition is at risk. The historical local telephone company is here to stay for a while as a monopolist in the local loop. Telecommunications policy decisions should take its dominance as a premise.

5. There are large costs and only minor benefits from allowing the dominant local phone company to control a long-distance carrier serving its own customers. Under the existing policy of structural separation of long distance and local service, the local telephone companies have cooperated fully and productively with the independent long-distance companies who depend on the local companies for access to local loops. Consumers have enjoyed the benefits of competition in long-distance service plus cooperation between the local access providers and the long-distance carriers. Separately, regulation has limited the exploitation of monopoly power at the local level. But if the monopoly local company enters long-distance service, it becomes a rival of the independent carriers. The strategy of greatest value to its shareholders is to withdraw cooperation from the independent long-distance carriers and to channel as much business as possible to the local carrier's own long-distance arm. The result is higher prices for long-distance service due to hobbled competition.

6. The potential harm from control by the dominant local telephone company of a long-distance affiliate is not just theoretical; it has been repeatedly borne out in actual experience. In the struggle to open long distance to competition, AT&T thwarted most competition until divestiture in 1984. More recently, in those cases where a local telephone company has taken control of a long-distance

affiliate, it has proven to be the high price, not the low cost, carrier, and it has withdrawn previous cooperation with the independent long-distance carriers.

7. In services provided on a vertically integrated basis by the local telephone companies—including local toll telephone service, voicemail, and payphones—dominant local telephone companies behave precisely as economic principles predict: they make the services of their rivals expensive and inconvenient, and set their own prices well above cost. The evidence that non-cooperation and higher prices result from allowing a dominant local telephone company to enter a competitive business that depends on its local service is not ambiguous—it is overwhelming. There is no reason to expect BellSouth to behave differently.

8. My declaration explores these issues and arguments in depth. Part II assesses the development of local competition. I conclude that local telephone markets remain vulnerable to efforts of the incumbent local carriers to protect their traditional positions in local service, and that competition of the sort likely to offer genuine consumer protection is not present now nor likely to arise soon.

9. An important theme of the declaration is that, if dominant local carriers are also permitted to control long-distance affiliates selling to their local customers, the local carriers will withdraw cooperation from their long-distance rivals. The first section of Part III covers this topic. Cooperation is essential for an efficient national telephone network. Smooth operation of the network requires a high level of technical interaction among the firms making up the network, and, as technical progress continues, the need for cooperation will become even greater. Telephone customers would be injured by the breakdown of cooperation resulting when rivalry develops between the dominant local carrier and its long-distance rivals.

10. What effects can be expected from permitting BellSouth and the other Bells to control long-distance carriers that serve their local customers? This is the second major subject of Part III. Notice the careful phrasing. Nothing stops local carriers from creating long-distance carriers who serve their customers, as long as the local carrier does not control the long-distance carrier subsequently. But no Bell has chosen to do so. And nothing stops local carriers from using their expertise to create long-distance operations that serve the customers of local carriers in other regions. The Bells have shown little interest in this role, either.

11. These two facts together—that no Bell has chosen to establish an independent long-distance carrier that it does not control, nor sought to offer substantial long-distance service outside its own region—are telling. They are powerful evidence that (1) the long-distance market is competitive, and (2) the Bells' intentions for entering long distance in their own regions should be scrutinized. I reason as follows: Because there are no regulatory barriers to entry in long distance, it is implausible that any new entrant to the market—including a local carrier entering a market outside its own region—sees a profit exceeding the normal return to capital. The low level of activity in long distance by local carriers outside their regions confirms this conclusion. The long-distance industry has not contradicted the basic principle of free markets that firms enter until they depress the anticipated excess return from further entry to zero. The Bells evidently expect to gain something else by controlling long-distance carriers in their own regions. Although it is possible that there are efficiencies from offering bundled local and long-distance service, there is the danger that the primary driving force is the benefit of hobbling other long-distance carriers to the advantage of the Bells' own affiliates.

12. Part IV addresses the issue of what the Bells might have to offer to the long-distance market. Would Bell control of long-distance subsidiaries improve long-distance competition? Data on prices and assessments of quality demonstrate that, since divestiture, prices have fallen dramatically and continuously right through the present, while service has improved in quality. The market is already competitive enough so that a Bell long-distance affiliate is unlikely to increase the level of competition anywhere near enough to offset the adverse effects described above.

13. Could the Bells, if providing long distance, offer anything the current market structure cannot? To find benefits of a dominant local carrier controlling a long-distance subsidiary to serve the same customers, we must look to specific efficiencies resulting from its control of the long-distance subsidiary. Benefits only qualify if the efficiencies cannot be achieved by contracts that preserve the protection of structural separation. For example, local carriers could bill their customers for long-distance purchases from unaffiliated carriers (as many do today), so this combined billing not a benefit specific to a Bell's entry into long distance.

14. A single phone supplier of bundled services is something many customers have indicated they prefer. In markets where local competition develops, effective competition among a number of integrated local-long-distance carriers will provide a variety of competitively priced alternatives.

15. Part V sums up the assessment of local telephone service markets, the assessment of long-distance telephone service markets, and the effects of control by a local telephone company of a long-distance subsidiary serving its own customers. The net effect is that that we have little to gain and much to lose.

16. Part VI of the declaration addresses the analysis of BellSouth's experts in this proceeding. Part VII concludes my declaration.

II. Local Telephone Markets

17. Conditions in local telephone markets are a central issue in current policy decisions about long distance. Except for larger business customers, it is not practical for long-distance carriers to make their own connections to telephone customers. Instead, a long-distance call travels over circuits controlled by local telephone companies at both ends of the call. If local telephone markets were as competitive as the long-distance market—where customers have active choices among many rivals—unregulated markets would deliver efficient and inexpensive service, including access service to long-distance carriers. Instead, the overwhelming majority of telephone users have no effective choice at all about local service. The only alternative to the historical local telephone company is wireless service, which is expensive and of lower quality.

18. The development of competition in local markets must be irreversible to provide permanent protection to the consumer. Otherwise, permanent changes in the structure of the telephone system—in particular, in the relations between long-distance and local carriers—may occur as a result of temporary changes in local markets. The result could be a telephone system with all of the defects of the old monolithic AT&T—monopoly in local markets with the incentive and power to obstruct competition in the long-distance market.

19. The effective development of competition in local telephone services depends on cooperation among competing firms. Cooperation among rivals does not come naturally—it is the result of regulatory intervention. My discussion of these issues begins with a general consideration of the tension between cooperation and competition. Many of these issues also arise in the long-distance market, if local carriers are permitted to control long-distance subsidiaries.

A. How Cooperation and Competition Benefit Consumers

20. In the telephone system, as in many other industries, firms have vertical relations, where upstream firms are suppliers to downstream firms, as well as horizontal relations as competitors. Supplier relations require cooperation, especially in the technically sophisticated telephone industry. On the other hand, the consumer is best served when horizontal relations are completely uncooperative—when one seller actively competes for business by offering better prices and products than other sellers.

21. Absent vertical integration, upstream firms generally cooperate with their downstream customers. But horizontal rivals in the same market resist cooperating with each other—cooperation is the antithesis of competition. Once an upstream supplier integrates vertically into the downstream market, it becomes the rival of its downstream customers. Accordingly, it is unrealistic to expect the upstream firm to cooperate with its rivals in the downstream market. Yet cooperation between upstream and downstream firms is essential for consumer welfare.

22. The larger the role of the vertically integrated firm in the upstream market, the greater the strain between cooperation and rivalry. When the upstream market is competitive, and no seller has a significant market share, failure of a vertically integrated firm to cooperate is innocuous—the downstream purchaser can find an alternative upstream supplier who will cooperate if the vertically integrated supplier is uncooperative. Further, competitive markets can find the socially optimal degree of vertical integration. If there are efficiencies of integration, then competitive markets take the form of competition among many vertically integrated firms.

23. On the other hand, when the upstream seller has a significant share of the upstream market, the breakdown of cooperation with downstream customers upon vertical integration of the upstream seller becomes important. Unless cooperative upstream sellers can completely displace the sales of the less cooperative vertically integrated firm, the tension between cooperation and rivalry will arise; the customers who remain with the uncooperative vertically integrated firm in the downstream market will suffer from the lack of cooperation.

24. Two general principles emerge from this analysis: First, vertical integration into a downstream market merits scrutiny whenever the upstream seller has a significant role in the upstream market. Second, the social costs of the degradation of cooperation with downstream rivals that will inevitably accompany vertical integration need to be reckoned against any efficiencies that may result from the introduction of vertical integration.

25. The policy chosen by Congress for the telephone system, enforced cooperation through regulation, requires firms to act contrary to their shareholders' interests by cooperating with their downstream rivals by providing them with information and consulting help, facilitating interconnection, debugging problems jointly, and in hundreds of other ways.

26. When the upstream activity of the dominant firm is regulated, the disincentive for cooperation is much greater, because the dominant firm will attempt to capture profit from downstream activities that would be available from high prices in the upstream market absent regulation. In the telephone industry, one of the ways local carriers can escape the constraint of regulation in local service is by limiting the role of rival long-distance carriers and selling over-priced long-distance services to its captive local customers. The disincentive for cooperation is just as powerful under price-cap regulation as under traditional rate-of-return regulation.

27. When the product is a standardized commodity, cooperation between upstream sellers and downstream purchasers is least important. By the same token, cooperation is likely to be most important when the upstream and downstream functions have complex technical relations. The relationship

between a local and a long-distance carrier is highly technical, and is becoming more so, as increasing intelligence is added to the national telephone system.

B. Cooperation and Competition in the Telephone System

28. In the contemporary American telephone industry, the local carriers are vertically integrated in all network functions except long distance. Access, switching, and transport within the boundaries of the LATAs are all handled by the local carriers. Regulatory barriers to entry in these network functions have largely disappeared. The intent of modern telecommunications policy is to rely on competition to replace regulation. As a result, the issue of cooperation between the local carriers—still dominant in all markets except long distance—and their rivals is arising more and more frequently. To date, both state and federal regulatory policies have pursued enforced cooperation at every level except long distance.

29. Local toll markets demonstrate how vertical integration undermines cooperation—incumbent local carriers uniformly deny their rivals even the most elementary forms of cooperation, such as the use of convenient dialing methods, unless forced by regulators. The local carriers' failure to cooperate with their rivals places the rivals at a large disadvantage and gives the local carriers continuing dominance in many local toll markets. I believe the price and convenience of local toll services would be significantly lower if the local carriers cooperated with local toll competitors.

30. There are other examples which demonstrate the adverse effect of vertical integration on cooperation. For example, independent voicemail vendors are heavily dependent on local carrier cooperation. After the local carriers were permitted to integrate vertically into voicemail in 1988, cooperation with independent vendors fell dramatically. Almost immediately after the carriers were permitted to enter the voice messaging market, several of them filed tariffs that increased the costs of independent answering services by astronomical amounts. Several local carriers deny call forwarding on busy or no answer in connection with answering services, even though it is available to other customers.

31. Another example is the market for payphones. The incumbent local carriers have systematically denied independent payphone vendors the same facilities and interconnections used by their own payphones. The failure of the local carriers to cooperate with their downstream rivals in the payphone market is costly to the payphone user. As an example of non-cooperation, the local carriers consistently refuse to provide the same services to independents that they provide to their own payphone operations.

32. Cellular telephone systems, which depend on local telephone companies to deliver calls placed by cellular users to people with standard telephones, are a special instance where competition has not undermined cooperation because of special features of this service. In many markets, the local telephone company owns one of the cellular carriers, so that the issue of competition and cooperation should arise in principle. I believe that the tension between cooperation and competition is much less acute in cellular services than in local toll or long distance. Each of the two competitors is constrained to half of the spectrum capacity. It only makes sense for the local phone company to interfere with its cellular rival if its own cellular arm can serve additional customers taken from the rival. If its own cellular arm is at capacity, the incentive is diminished. Moreover, there were cellular interconnection disputes when the service commenced. Non-wireline carriers sought access to local exchange networks on a carrier-to-carrier basis while the local carriers refused and offered instead to interconnect cellular carriers as if they were just large customers.[1]

33. The state regulatory commissions and the FCC are responsible for enforcing cooperation between independent firms in the telephone network. As these regulators have permitted entry into new layers of the network—local transport, local access, payphones, voicemail, and wireless—this role of enforcing cooperation contrary to the interests of the local carriers' shareholders has become more complicated and more important. The regulators have not been

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[1] These points are developed by Dan Kelley in his declaration filed before the FCC. See *Attachment to Reply Comments of MCI Telecommunications Corporation Concerning Expedited Reconsideration of Section 271(e)(4)*, In the Matter of Implementation of the Non-Accounting Safeguards of Sections 271 and 272 of the Communications Act of 1934, as amended, CC Docket No. 96-149, April 24, 1997.

completely unsuccessful in enforcing cooperation. For example, regulators in a number of states overcame the fierce opposition of the local carriers and obtained dialing parity for those carriers' rivals. But the regulators face an uphill battle—it took huge efforts to get dialing parity and it is still unavailable in many important markets. All of these failures of cooperation occurred despite the existence of regulation that intends, broadly, to compel cooperation.

34. These failures of cooperation in spite of regulation translate into significant foregone consumer welfare. A leading example is that lack of dialing parity has severely limited competition in local toll markets, so the local carriers have been able to slow the arrival of competition and to maintain high prices in these markets.

C. Actual and Potential Competition in Local Markets

35. The Act requires that local telephone companies cooperate in opening local telephone markets to competition before they are to allowed to enter the long-distance business. In effect, the Act offers the profits from selling long-distance service as an incentive to open local markets to competition. The Act promotes three forms of local competition: (1) reselling of local service (at retail rates less avoided marketing costs), (2) leasing (at economic cost) of circuits, switches and other elements, such as access to data bases, directory assistance, operator services, white pages, ordering systems, and, (3) the building of independent facilities, that is, circuits and switches owned by independent carriers.

36. None of these forms of competition is present to any significant extent in any significant local market. (1) Reselling is occurring in a few experiments; probably the highest volume is AT&T's program in Connecticut. (2) As yet, only a trivial amount of local service based on leasing of Bell circuits and switches has occurred. One reason is that the terms of the leases have only just been set by regulators or have not been set at all. Where there are opportunities in principle for leasing of network elements, independent carriers are frustrated by the Bells' failure to cooperate in providing the elements, by high initial (non-recurring) costs, and by excessive rates for some elements. (3) Few independent firms are providing their own wire connections to homes or small businesses. Hopes that

cable companies or electric utilities might provide rival connections have proven unrealistic.

1. Reselling

37. Local competition based on the reselling of Bell services has the least potential benefit for customers of the three forms of competition promoted by the Act. The Act sets the price of resold local service at the local phone company's retail price less avoided marketing costs. All distortions built into current retail prices are inherited by the reseller's cost and therefore are embodied in the reseller's price. Consumers enjoy no benefits of lower costs save to the degree that the reseller's retailing costs are below the retailing costs avoided by the local phone company.

2. Leasing of Circuits and Switches

38. In principle, the second form of local competition promoted by the Act—the leasing of the incumbent's circuits and switches to local rivals—promises greater benefits. The Act sets the price for leased facilities at a rate based on cost. Unlike the pricing of resold services, this form of pricing allows local rivals to overcome existing distortions, provided that facilities are truly available at economic cost. In practice, however, it appears that the prospects for competition based on leased facilities are poor. Most state commissions have established only interim terms for wholesale transactions in local network components. No significant investment and irreversible commitment to competing with incumbent local carriers could occur without strong assurances that leased facilities will be available on known terms close to economic costs for the indefinite future. In addition, the systems required to provide rivals with fluid use of these elements, such as ordering systems, have not been put in place yet.

39. The conflict between competition and cooperation arises acutely when a rival competes with a local carrier by leasing facilities. Based on past conduct of telephone companies—acting strictly in their shareholders' interests—the actual experience of trying to compete with the incumbent by using its facilities is likely to be excruciatingly frustrating to those who attempt it. Local carriers' proven ability to delay or avoid regulatory intervention is sure to limit the benefits that consumers actually derive from this form of competition. For competition to

develop and flourish, rivals need to be able to use the pieces of the existing network as easily as the incumbent, and to pay no more than economic cost. This is an ambitious goal for regulation.

40. Policies to promote local competition through the leasing of facilities need to go far beyond the creation of the theoretical possibility that a rival can lease facilities from the historical phone company. Lease transactions need to be speedy and standardized, with minimum transactions costs, in order for rivalry based on leased facilities to provide serious competition in local markets.

41. Moreover, the Bells have shown their ability to inhibit the benefits seemingly promised by the Act. The result is at least a long delay in providing an environment where local rivals can rely on the availability for the long run of leased facilities at known and reasonable prices. The process of opening competition through fair pricing of existing facilities is thoroughly bogged down in rent seeking. The local phone companies will continue to create legal and other obstacles so long as their tactics succeed in preserving the status quo. Moreover, if the inhibiting effect of the local carriers' impending applications for the right to sell long-distance is allowed to run out, it is reasonable to expect even more intense warfare against local rivals hoping to lease facilities.

3. Building of Independently Owned Circuits and Switches

42. The third form of competition envisioned by the Act, the building of independent circuits and switches, is at once the form of competition that should give regulators the greatest degree of comfort for allowing the local phone companies into long distance, and at the same time the least likely standard to be achieved. This is brought home by the recent standard for competition recommended by the Department of Justice—that there be significant irreversible developments in local telephone service to demonstrate that there is a credible commitment on the part of local rivals to remain in the local telephone business. If rival local carriers are merely renting or leasing circuits and switches from the Bell, or even less permanently, reselling local service, their role may not reach the standard of irreversibility. If the prices for these unbundled network elements and resold service were raised by the local carrier, the rivals could easily and costlessly exit.

43. The economics of local circuits and other elements is critical to the potential success of a policy of replacing local regulation with competition. Long-distance carriers and local rivals lacking their own complete local loops are dependent on the facilities of the incumbent local firm—today, almost always the historical regulated monopoly local carrier. The monopoly power lies in their ownership of the single loop that connects the typical customer to the telephone system. The single loop is extremely likely to remain the *only* loop, both because it is one of the most expensive network elements and because the loop plant possesses such great economies of scale that no rival would find it economical to attempt to duplicate it.

44. The scale economy of the historical phone company's extant local loop plant inhibits entry into the market for local telephone service. Because the extant plant is universal, the cost of adding another phone to it will almost always be lower than adding another loop to the rival's incomplete loop plant. A potential rival, knowing that it could always be underpriced by the incumbent phone company because the incumbent enjoys lower costs, is unlikely to choose to be a rival at all, unless it can have a high degree of assurance that loops will be readily available from the incumbent on reasonable terms. If the historical phone company is pricing its local service at its own cost, no rival could hope to profit from entering with its own loops, either in the short run or long run. If the historical phone company is pricing its service above cost, the rival's entry is still deterred by its anticipation that the incumbent will underprice it after entry.

45. Thus, the type of unrecoverable investment that would give regulators the greatest assurance that local competition has taken hold permanently is unlikely to be available for the majority of local telephone subscribers. Earlier claims that significant fractions of telephone customers could bypass the existing local network have proven groundless—wireless access suffers both cost and quality disadvantages, and hopes that cable television vendors would add telephone capabilities to their systems have proven unrealistic. As a result, the historical local carriers remain and are likely to remain the sole owners of facilities for access at reasonable cost to the overwhelming majority of telephone customers.

46. In my opinion, the Department of Justice has recommended the appropriate economic standard for determining when it is safe for a local carrier to assume control of a long-distance affiliate—when the local market is irreversibly open to

competition. That standard will only be met when local competition has advanced to the point that local service rivals have committed significant unrecoverable investments and competition is at a level where the market is essentially self-regulating. At that point, the historical local carrier's market share will have begun to decline substantially in all local markets thanks to the entry of numerous rivals; barriers to entry of all types, regulatory and otherwise, will have been permanently removed; prices will be converging toward levels determined by cost; and the pace of innovation and the introduction of new services will have accelerated.

D. Is there Enough Local Competition to Relinquish Bell Cooperation with the Independent Long-distance Carriers?

47. The state of local competition is critical to long-distance policy, because long-distance carriers rely on local carriers to provide access at both ends of the typical long-distance call. Currently, independent long-distance carriers enjoy cooperative relations with local carriers, because their relations are those of buyer and seller, and not of rivals. If local carriers become rivals in long distance, they will owe a duty to their shareholders to withdraw cooperation wherever possible. Long-distance carriers and their customers would be protected if they could turn to alternative suppliers of access to escape the adverse effects of the withdrawal of cooperation. And, in that environment, local carriers, including the historical carrier, would have an incentive to remain cooperative.

48. At present, long-distance carriers and their customers rarely face alternative suppliers of access except in the case of larger businesses. As discussed earlier , none of the three modes of local competition promoted by the Act has succeeded in establishing alternative local carriers who could provide access to residential or smaller business customers. Ineffective regulation and the high cost of alternative access technologies constitute substantial barriers to entry to the access market. There is strong indirect evidence that these barriers are formidable. All observers agree that access is priced well above cost. Nonetheless, the incumbent local carriers have retained their near-monopolies. The continuation of high profit margins can be explained only by barriers to entry.

49. I conclude that for the present and near future, policy decisions about long distance in general and in particular Bell applications to enter long distance should be made on the assumption of the continuation of a single access provider for most telephone customers and with access charges regulated at levels above costs.

E. Bell Entry into Long Distance Now Would Impair Any Potential for Local Competition

50. Vertical integration of the dominant local carrier into long distance would have an important chilling effect on local telephone competition. We may safely assume that the local carrier's long-distance operations will rely upon the local carrier for access. Hence the shift of an important share of long-distance traffic from independent carriers to the local carrier's long-distance affiliate will reduce the potential business available to a new competitor in local service. Because local service has important increasing returns to scale, the reduced size of the local market will lower the incentive perceived by the potential entrant to the local market and cut the number of local competitors.

51. Access is one of the most profitable services sold by a local carrier. Regulation has been far more successful in keeping local service prices close to cost than it has been in keeping access charges close to cost. Hence the opportunity to sell access at prices somewhere between cost and the prevailing high price is one of the main economic incentives for entry to local service. In fact, the only robust form of local entry that has occurred to date—competitive access providers for large customers—relies entirely on this source of profit. Removing 20 or 30 percent of the access market by permitting a local carrier to control a long-distance subsidiary would have a significant adverse effect on the incentives for local entry.

52. In addition, integrated long-distance operations would give the dominant local carrier a potent strategic tool for depriving potential local entrants of much of their anticipated profits from the provision of access. Where the dominant local carrier is not a long-distance carrier, rival local carriers can capture access business whenever their cost is below the high level of regulated switched access charges. The dominant local carrier cannot lower the switched access charge

opportunistically to retain the access business. But when the dominant local carrier bundles access and long distance, as it would under any program of vertical integration, the carrier would have the freedom, in effect, to lower its implicit access charge so as to deter entry and retain its access customers.

53. Thus if a Bell achieves a significant share of the long-distance business of its subscribers in one of its home states, the likelihood of entry and improved competition in local service in that state will be diminished. Whereas independent long-distance carriers would cooperate enthusiastically with new local carriers, few of those new carriers would serve customers who chose the incumbent Bell as their long-distance carrier.

54. I conclude that vertical integration of the local carrier into long distance will inhibit the development of local competition by depriving potential entrants to local markets of much of the profit otherwise available from the access business.

III. Effects of Control of a Long-Distance Subsidiary by a Local Telephone Company

55. An application by an incumbent local carrier for permission to operate a long-distance subsidiary to serve its current customers raises the questions about competition and cooperation already discussed in Part II. Currently, local telephone companies cooperate with the many long-distance carriers, who are customers for access services at both ends of the great majority of long-distance calls. Cooperation is a natural outcome of the relationship between a seller—the local carrier—and a buyer—the long-distance carrier. Cooperation is threatened when the local phone company controls a long-distance subsidiary. Then the other long-distance carriers become rivals of the local carrier and cooperation is no longer in its interest.

56. After a dominant local carrier takes control of a long-distance carrier, shareholder interest will dictate that the local carrier cease any voluntary cooperation with independent long-distance carriers, who would then be the local carrier's rivals. Local competition relieves this problem, because in a sufficiently competitive local market the incumbent's long-distance affiliate would require the same types of cooperation from other local providers that rival long-distance

firms required from the incumbent. It is critical to understand that current levels of cooperation between local telephone companies and long-distance carriers are no guide to the level of cooperation that would occur after they became rivals.

57. Recent economic analysis of the incentives of a monopolist to cooperate with downstream rivals has clarified the circumstances when cooperation can be sustained and when it will be withdrawn. In the case where the downstream customers sell products that are close substitutes, it is never in the monopolist's interest to cooperate. By withdrawing cooperation and raising the costs of downstream rivals, the monopolist can always earn more profit through the enhanced sales and profits of its own downstream seller. I treat this topic more fully in Section H of this Part, where I also indicate the shortcomings of analyses that seem to reach the opposite conclusion.

58. The monopolist's incentives to withdraw cooperation from downstream rivals exist under all conditions in the upstream market, but are strongest when the price in that market is held below the monopoly price by regulation. The upstream monopolist in that case will be able to recover monopoly profits denied to it by regulation by elevating prices in the downstream market. In the telephone market, access charges are regulated by the FCC. Not only are they held below the monopoly level, but changes recently ordered by the FCC will increase the bite of regulation and lower access charges toward the level of cost. As these lower access charges go into effect, the incentive of the local telephone companies to inhibit the operations of their long-distance rivals will become greater.

59. The withdrawal of cooperation that follows from a local carrier controlling a long-distance affiliate is socially harmful. Reduced cooperation and the resulting higher long-distance costs raise long-distance prices. This conclusion follows whether or not the long-distance market is perfectly competitive.

60. In view of the high social value of cooperation, a policy permitting a local carrier to affiliate with a long-distance carrier requires a companion policy of enforcing cooperation between the newly integrated carrier and its long-distance rivals. This policy of enforcing cooperation would replace the policy of inducing cooperation through market incentives provided by the current principle of structural separation, where the long-distance carriers are only customers, not rivals, of non-integrated local carriers. In the previous Part, I considered the

evidence on the success of regulation and litigation in enforcing cooperation contrary to market incentives. At best, regulators and courts can prevent the more conspicuous forms of non-cooperation—overt acts of discrimination. Even then, remediation usually comes years after the conduct begins. I believe that the evidence is generally unfavorable to the hypothesis that genuine cooperation of the type needed increasingly between the elements of the telephone network can be enforced from the outside.

61. The dangers of non-cooperation become greater as time passes. At first, any departure from earlier relations between a local carrier and its independent long-distance customers would be conspicuous. As time passes, the comparison with the cooperation that occurred automatically under structural separation would be less instructive. Continuing technical change and changes in market conditions will diminish the usefulness of a comparison to the earlier situation with high levels of cooperation.

62. Regulation of access services in most markets will continue because the current local carriers will remain dominant in these access markets for the foreseeable future. As I noted earlier, cooperation with downstream rivals is particularly unlikely if the upstream market is regulated. In addition, vertical integration raises the burden on the regulator by creating opportunities for cost shifting. Determining the appropriate allocation of costs between the regulated and competitive activities of the same telephone company is expensive and unreliable. Under any but the most pristine price cap, regulation creates an incentive to report costs of unregulated operations as if they arose from regulated operations. The incentive is direct in traditional regulation, where a firm is compensated for its allowable costs. The incentive is indirect but still important in price-cap regulation, to the extent that future price caps depend on current costs or profits. The shifting of costs from unregulated to regulated activities lowers social welfare in two ways: It raises the price of regulated service and it displaces more efficient rivals from the unregulated market. Section I of this Part deals with these issues.

63. The policy of structural separation is best applied when efficiencies from vertical integration are small relative to the costs of non-cooperation. In Section C of this Part, I consider evidence on these efficiencies, with particular attention to those identified in the studies sponsored by the Bells. I do not find persuasive evidence of efficiencies from combining long distance with access and other types of local service.

A. Benefits of Cooperation in the Telephone Network

64. Long distance involves substantial cooperation between the carrier and access providers at both ends of the call. As networks become more sophisticated, cooperation will become more critical. In that respect, the benefits from the principle of structural separation are growing over time.

65. The conversion of the national telephone system from MF signaling to SS7 signaling has dramatically increased the benefits that the telephone customer can obtain from the system if the various suppliers in the system cooperate. The advent of the Advanced Intelligent Network and the use of ever more sophisticated software will increase the potential benefits even further.

66. As the national telephone system becomes more sophisticated, the importance of cooperation becomes greater but cooperation becomes more subtle and difficult to enforce through regulation and litigation. Experience in the downstream markets where the incumbent local carriers are already vertically integrated—local toll, voicemail, and payphones—suggests uniformly that the carriers serve their shareholders by cooperating as little as possible. Unless the efficiencies of vertical integration are substantial, the customers' interests are better served by the principle of structural separation. Under that principle, the carriers have incentives to cooperate with their downstream customers.

67. Structural separation requires separate ownership of the dominant local carrier and long-distance carriers—its purposes cannot be accomplished simply by placing the local carrier's long-distance operation in a separate subsidiary, as required by Section 272 of the Telecommunications Act. The requirement for a separate long-distance subsidiary in the Telecommunications Act of 1996 applies even after sufficient local competition has developed to allow the removal of structural separation. The requirement for a separate subsidiary has benefits for regulation, but does not affect incentives that inhibit cooperation after vertical integration

B. Can Regulators Force Cooperation?

68. Earlier, in Part II, I considered a number of examples of the low level of cooperation between vertically integrated telephone companies and their rivals in downstream markets. All of these instances of non-cooperation occurred despite regulation. As a general matter, I believe it is a fair summary of the

evidence from experience in the telephone industry that regulators have not been successful in enforcing high levels of cooperation in situations where the shareholder interests of the local carriers have been to avoid cooperating with downstream rivals. The previous Part showed that competition in the upstream access market has not increased enough to reduce appreciably the need for cooperation between the local carriers and long-distance carriers.

69. In my opinion, it would be unrealistic to expect enforcement and regulation to deal effectively with the major new problems that control of long-distance subsidiaries by local telephone companies would bring. Regulation and enforcement have failed to deal effectively with the most elementary instances of non-cooperation in areas such as local toll service and payphones. I believe that it would be unwise to rely on the same institutions to deal with the more significant social losses that would occur upon vertical integration into the long-distance market. Again, existing high levels of cooperation between local and long-distance carriers are no guide to the level of cooperation that would occur after local carriers take control of long-distance sellers.

C. Do Efficiencies Outweigh the Loss of Cooperation When a Local Monopoly Controls a Long-Distance Subsidiary?

70. Despite the social costs of reduced cooperation and the regulatory burden of enforcing cooperation to replace market incentives, it could be desirable to permit local phone companies to control long-distance subsidiaries if there were sufficiently important efficiencies from that control. The issue is *not* whether there are *any* efficiencies. Rather, it is whether the efficiencies are quantitatively sufficient to overcome the sum of the social costs of the decline in cooperation that will accompany vertical integration and the costs of enforcing whatever level of cooperation can be achieved by regulation and litigation.

71. The appropriate measure of efficiency benefits is based on the comparison of full control by the local phone company of a long-distance subsidiary to the most efficient vertical relationship based on contracts that preserve incentives to cooperate. The benefits of vertical integration are limited to those that cannot be achieved through contracts. A leading example is billing. Customers' preference for single telephone bills combining local and long-distance charges are not a source of efficiency, as past experience has shown that the local phone company